

COMPLETE LISTING OF ALL CLAIMS IN THE APPLICATION

1. (original) An enzyme catalysing in an acyl-CoA-independent reaction the transfer of fatty acids from phospholipids to diacylglycerol in the biosynthetic pathway for the production of triacylglycerol.
2. (original) An enzyme according to claim 1, comprising an amino acid sequence as set forth in SEQ ID No. 2 or a functional fragment, derivate, allele, homologue or isoenzyme thereof.
3. (previously amended) An enzyme according to claim 1 designated as phospholipid:diacylglycerol acyltransferase (PDAT).
4. (canceled)
5. (currently amended) An enzyme according to claim 1, comprising an amino acid sequence selected from the group consisting of sequences set forth in SEQ ID NO: 6, 8, 13, 14, 15, 16, 17, and 18 or a functional fragment, derivative, allele, homolog or isozyme thereof.
6. (currently amended) An enzyme according to claim 1, comprising an amino acid sequence encoded through a nucleotide sequence, a portion, derivative, allele or homolog thereof selected from the group consisting of sequences set forth in SEQ ID NO. 1, 3, 4, 5, 7, 9, 10, 11, 12, 18, 19 or a functional fragment, derivative, allele, homolog or isozyme of the enzyme encoding amino acid sequence.
7. (original) A nucleotide sequence encoding an enzyme catalysing in an acyl-CoA-

independent reaction the transfer of fatty acids from phospholipids to diacylglycerol in the biosynthetic pathway for the production of triacylglycerol.

8. (original) A nucleotide sequence according to claim 7 encoding an enzyme designated as phospholipid:diacylglycerol.acyltransferase (PDAT).
9. (currently amended) A nucleotide sequence according to claim 7, selected from the group consisting of sequences as set forth in SEQ ID NO. 1, 3, 4, 10, or 11 or a portion, derivative, allele or homolog thereof.
10. (currently amended) A partial nucleotide sequence corresponding to a fulllength nucleotide sequence according to claim 7, selected from the group consisting of sequences as set forth in SEQ ID NO. 5, 7, 9, 12, 18, 19 or a portion, derivative, allele or homologue thereof.
11. (currently amended) A nucleotide sequence according to claim 7, comprising a nucleotide sequence which is at least 40% homologous to a nucleotide sequence selected from the group consisting of those sequences as set forth in SEQ ID NO. 1, 3, 4, 5, 7, 9, 10, 11, 12, 18, or 19.
12. (previously amended) A gene construct comprising a nucleotide sequence according to claim 7 inoperably linked to a heterologous nucleic acid.
13. (previously amended) A vector comprising a nucleotide sequence according to claim 7.
14. (original) A vector according to claim 13, which is an expression vector.
15. (previously amended) A vector according to claim 13, further comprising a

selectable marker gene and/or nucleotide sequences for the replication in a host cell or the integration into the genome of the host cell.

16. (currently amended) A transgenic cell or organism containing a nucleotide sequence according to claim 7.
17. (original) A transgenic cell or organism according to claim 16 which is an eucaryotic cell or organism.
18. (previously amended) A transgenic cell or organism according to claim 16 which is a yeast cell or a plant cell or a plant.
19. (previously amended) A transgenic cell or organism according to claim 16 having an altered biosynthetic pathway for the production of triacylglycerol.
20. (previously amended) A transgenic cell or organism according to claim 19 having an altered oil content.
21. (previously amended) A transgenic cell or organism according to claim 16 wherein the activity of PDAT is altered.
22. (previously amended) A transgenic cell or organism according to claim 16 wherein the altered activity of PDAT is characterized by an alteration in gene expression, catalytic activity and/or regulation of activity of the enzyme.
23. (previously amended) A transgenic cell or organism according to claim 16 wherein the altered biosynthetic pathway for the production of triacylglycerol is characterized by the prevention of accumulation of undesirable fatty acids in the membrane lipids.

24. (canceled)
25. (previously amended) Triacylglycerols produced by a process according to claim 30.
26. (canceled)
27. (canceled)
28. (previously added) A vector comprising the gene construct of claim 12.
29. (previously added) A vector according to claim 28, further comprising a selectable master gene and/or nucleotide sequences for the replication in a host cell or the integration into the genome of the host cell.
30. (previously added) A process for the production of triacylglycerol, comprising growing a transgenic cell or organism according to claim 16 under conditions whereby a nucleotide sequence encoding an enzyme catalyzing in an acyl-CoA-independent reaction the transfer of fatty acids from phospholipids to diacylglycerol in the biosynthetic pathway for the production of triacylglycerol is expressed and whereby said transgenic cells comprising an enzyme catalyzing in a acyl-CoA-independent reaction the transfer of fatty acids from phospholipids to diacylglycerol in the biosynthetic pathway for the production of triacylglycerol.
31. (previously added) A method of producing triacylglycerol and/or triacylglycerol with uncommon fatty acids which comprises transforming an organism or host cell using the nucleotide sequence of claim 7, whereby the transformation results in an altered, preferably, increased oil content of the cell or organism.
32. (previously added) A method of producing triacylglycerol and/or triacylglycerols with

uncommon fatty acids using the nucleotide sequence of claim 7.

33. (previously added) A method of producing triacylglycerol and/or triacylglycerols with uncommon fatty acids using the enzyme of claim 1.

34. (new) A transgenic cell or organism containing a gene construct according to claim 12.

35. (new) A transgenic cell or organism containing a vector according to claim 28.